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ABSTRACT

The study described in this report explored the development of the professional perspectives of 12 students through all phases of their teacher preparation program in southern Alberta (Canada). The purpose of the study was to examine the process of "becoming a teacher" from the point of view of students "in process" and to examine the impact and effects of a teacher preparation program on these students' development. Data analysis and interpretation were based on observations, interviews, journals, and stimulated recall to identify and describe the thoughts, feelings, and actions of education majors as they progressed through the program. Professor and cooperating teacher behaviors and contextual elements which stimulated various responses in students were also identified. Findings indicated that students do change during their teacher education program and that the total program contributed significantly to the process of becoming a teacher. Students learned: (1) a great deal about how to teach (organizational and routine procedures, how to deal with specific students, the jargon of teaching, and a variety of teaching techniques and strategies); (2) how to learn; (3) to develop or enhance a number of personal qualities; (4) about themselves as teachers; and (5) to develop a philosophy of teaching. The paper concludes with a discussion of the importance of the practicum, the importance of reflection, and the individualized nature of learning to teach. (Contains 29 references.) (LL)

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BECOMING A TEACHER: THE CONTRIBUTION OF TEACHER EDUCATION

by

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BECOMING A TEACHER: THE CONTRIBUTION OF TEACHER EDUCATION

> Teachers say that their preservice education has only a minor influence on what they do in the classroom (Katz, 1972, p. 53).
>
> . . . formal education could be seen as a sort of fiddler crab dance, a ritual parallel to, but essentially irrelevant to the real business of becoming a teacher (Fuller and Bown, 1975, p. 29).

Current literature on the preparation of teachers suggests that little has changed since the 1970s when researchers were suggesting that serious problems existed in teacher education. Tisher and Wideen, in their 1990 review of research on teacher education in 12 countries, describe a disconnected collection of individual studies conducted by a wide variety of persons and organizations, for different purposes, and with considerable variability with respect to quality. An examination of the very comprehensive *Handbook of Research on Teacher Education* (Houston, 1990) identifies a number of different goals and paradigms of teacher education and purposes for assessing effectiveness, and the section on the evaluation of teacher education makes it very clear that "program evaluation in teacher education as a practice has hardly been tested for its potential" (Galluzzo & Craig, p. 613). This historical lack of inquiry has resulted in a state in which teacher education is very vulnerable to criticism. There is no body of evidence with which to counter criticisms of teacher education, or on which to base changes.

Most research on teacher preparation programs examines the contribution of teacher education to the process of becoming a teacher from one of three vantage points: the contribution of the practicum experiences (e.g., Tardif, 1985a, 1985b; Feiman-Nemser & Buchmann, 1987; Campbell, 1985, 1986, 1989; Zeichner, 1980; MacKinnon, 1989); retrospective assessments of teacher preparation programs (e.g., Miklos & Greene, 1987); or research on practising teachers' beliefs and knowledge (e.g., Clandinin, 1985). Each type of study has contributed to the understanding of teacher education, but few have examined teacher preparation as a totality.

Ross (1988) identified four basic frameworks for examining the process of becoming a teacher. As labeled by Veenman (cited in Ross) these are: a) perceived problems of beginning teachers, b) developmental concerns, c) cognitive developmental framework, and d) teacher socialization. Ross suggests further that the teacher socialization framework is the most inclusive because it "allows for the use of psychological concepts, but also gives attention to the context within which changes occur" (p. 101).

A number of researchers (cited in Goodman, 1988) are using the framework of teacher socialization and are discovering that the professional ideas that guide subsequent behavior are formed early in one's career. Goodman asserts that before we can "improve" teacher education there is a "need to understand the thinking, as well as the behavior of prospective teachers, [that is], to understand the way in which students develop a practical philosophy of teaching" (p. 121).

Zeichner, Liston, Mahlios and Gomez (1988) argue that research on teacher education programs must examine how events are interpreted and acted upon by those who participate:

> . . . teacher educators should not take it for granted that, because a practice or procedure is described in a particular way by program planners, its implementation takes the form and has the social meaning that its originators intended (p. 350).

To better understand this process of becoming a teacher, or of developing a practical philosophy of teaching, several researchers are now examining the teacher perspectives that students develop during their professional preparation

(e.g., Adler, 1984; Goodman, 1988; Ross, 1988; Tardif, 1985; Zeichner et al. 1988). Teacher perspectives, unlike more abstract constructs such as attitudes or values, have reference to particular phenomena and include an individual's actions rather than just his or her disposition to act (Goodman, 1988, p. 121).

This paper describes a study in which we explored the development of the professional perspectives of students enrolled in a teacher preparation program in southern Alberta, Canada, as they progressed through all phases of their program. The purpose of the study was to examine the process of "becoming a teacher" from the point of view of students "in process" and to examine the impact and effects of a teacher preparation program on these students' development. In essence, we wanted to know how our students developed a philosophy of teaching and personal practical knowledge about teaching, or as Eisenhart & Borko (1991) described the goal of a similar study on becoming a math teacher: "to describe and explain changes in the novice teachers' knowledge, thinking, and actions related [to teaching] over the 2-year course of [the] study" (p. 148).

The Teacher Education Program at The University of Lethbridge

The teacher education program at The University of Lethbridge requires that all students complete two years of liberal education in Arts and Science and an introductory Education Course which has a substantial practicum component, before applying for admission to the Faculty. Upon admission all students are registered in Professional Semester I (PS I), a five-course semester consisting at the time of the study, of on-campus modules in Curriculum and Instruction, Educational Psychology, Language Arts, Media, Computing, and Interaction Lab -- a component focussing on communication and personal and professional growth -- and two 3-week blocks of full-time practicum experiences. The focus in PS I is on "generic" knowledge and skills, and students are not grouped by major. The students were in groups of ten for the Interaction Lab component and were supervised in their practicums by their I-L instructors. Three I-L groups together formed a "vertical group" of 30 students who stayed together for instruction in their other modules.

At the end of PS I many students took summer courses; others worked during the summer. In the fall semester students completed five on-campus courses in Education and Arts and Science, and in the spring semester they entered Professional Semester II. (Students had the option to reverse these two semesters). In PS II students were grouped by major for courses in Curriculum and Instruction and Evaluation of Student Learning, and were supervised by their C&I instructor during their 9-week full-time practicum. Following their spring semester, students completed any remaining required Education courses (e.g., Foundations courses) or Arts and Science courses required for their major.

Method

The methods considered appropriate for studying of the development of teacher perspectives are those associated with qualitative inquiry because this methodology "is free to combine a variety of data gathering methods, and it allows for the generation of analysis grounded in recorded data concerning the professional perspectives of teachers" (Goodman, 1988, p. 122). We were guided by the principles of "ethnographic semantics" (Spradley, cited in Goodman) in which the meaning the students gave to their verbal expressions became the primary focus for investigation. We used observations, interviews, journals, and stimulated recall to identify and describe the thoughts, feelings and actions of education students as they progressed through the program. Professor and cooperating teacher behaviors and contextual elements which stimulated various responses in students were also identified.

Sample and Procedures

In January of 1989, we randomly selected 12 University of Lethbridge students from the successful applicants to the Faculty of Education, and we invited them to participate in the study. All agreed, in spite of knowing the time commitment being asked of them. All students were in at least their third year of university study; six were male and six female. We interviewed each of the 12 students on admission to the program and on graduation, which for most students was about 18 months later. During the practicum semesters, students were observed at least twice in on-campus classes and twice in practicum placements. During non-practicum semesters, students were observed approximately four times in on-campus classes. Field notes focussed on what students were doing and the context in which the behavior occurred, and were used to guide the interviews which followed each observation. During the interviews students were stimulated to recall specific behaviors and to describe what they were doing, thinking and/or feeling at the time. Interviews lasted from 20 to 95 minutes and were audio-taped and transcribed for analysis. In total there were more than 160 separate observations, each of which was followed by a taped interview. Although the two main researchers conducted most of the observations and interviews, three graduate students provided considerable assistance. A taped telephone interview was also conducted with each participant during the fall of 1992 when most had completed two years of teaching.

Analysis and Interpretation

All field notes and interview transcripts were analyzed in depth by at least two researchers, one of which was always the first author, with no *a priori* constructs in mind. Marginal notes were used to identify tentative themes. All tentative themes were then recorded and with each further reading were grouped into tentative categories and recorded on large charts, indicating with supporting quotes, whether and how other interviews contributed to each theme. Where there were discrepancies between interpretations, conversations and rereadings helped to clarify differences. Through this constant comparative method, themes, patterns and relationships emerged from the data rather than being imposed on it, and findings were viewed as an "ever-developing entity" (Glaser & Strauss, 1967, p. 32).

One of the major difficulties in a study of this type, in addition to remaining true to the participants' stories and their interpretations, is describing the stories in a meaningful way. As we poured over the transcripts attempting to understand what the students were saying collectively, we came to realize that the most powerful stories were those of the individuals, and in hindsight we wish that our approach had been to write each of the 12 stories over the course of the study. But that remains as an exciting future task. Having begun to analyze the data by themes and by semester it seemed prudent to continue. But there were further complications; after the first semester some students proceeded directly into the second professional semester while others continued their on-campus components. Further, differences between the on-campus components and the practicum experiences within the professional semesters became apparent. Nevertheless, there were integrating themes throughout and the decision was made that if at least half of the participants' unprompted comments related to a particular theme, it would be considered a "finding."

In the end we were guided by Eisenhart and Borko's 1991 interdisciplinary collaborative study of "the process of becoming a mathematics teacher as it unfolded for a small group of American college students from the time they entered their final year of teaching preparation through the end of their first year of teaching" (p. 139-140). Although their paper focussed on the nature of the study itself and the different perspectives and contributions of the researchers' disciplines, i.e., psychology and anthropology, their conceptual model suggested a framework for the interpretation and reporting of the data in this study (see Figure 1). The boxes in the figure are the contexts assumed to be the primary and secondary constituents of how the novice teachers learned. Those "constituents" served as the initial organizer for describing how the students in this study learned about becoming a teacher.

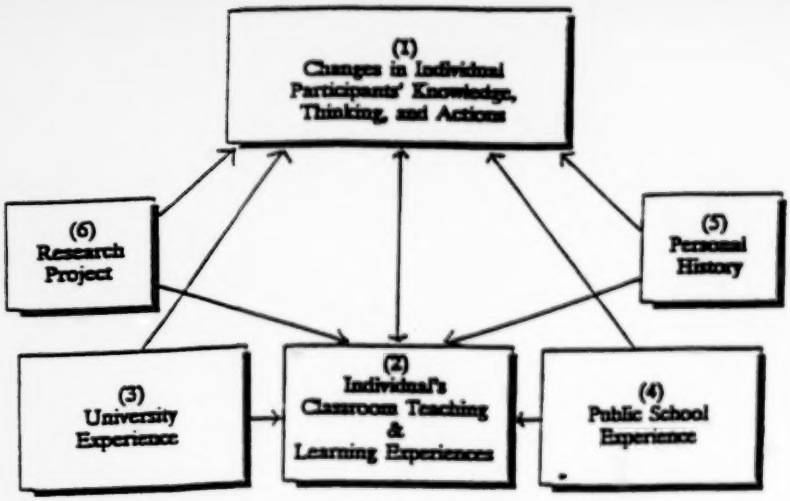

Figure 1. Becoming a middle school mathematics teacher.

From: Eisennart & Borko, 1991.

Limitations and Delimitations of the Study

The study was delimited to a sample of 12 students in one institution; the students were in different classes at different times and did their practicums in many different contexts. Five different researchers conducted the observations and interviews, and the interpretation of someone else's words is always subject to misunderstanding. The fact that the two primary researchers are faculty members in the program studied may have caused us to approach the interpretation from a particular perspective.

The sample size, the interpretative nature of the data collection and analysis, and the unique nature of the program studied may limit the generalization of the outcomes. However, to the extent that other teacher educators can identify similarities in their programs, the findings may be helpful.

How Students Learn to Become a Teacher

Public School Experience and Personal History

These two areas played a relatively minor role in this study since the focus of the questioning during the interviews and observations was on what was happening at the time. Nevertheless, it was apparent from the initial interview that past experiences and personal history had played the major role in the students' decision to become a teacher in the first place. Over one-half of the students mentioned that teachers they had had as students had influenced their decision to enter teaching. All students had entered the program with some previous experiences with children and the most frequent reason identified for entering the profession was that they liked children and wanted to work with them and that they saw teachers as important role models in the lives of children. The influence of previous school experiences was also apparent when students attempted to describe how they learned. During early interviews they had difficulty identifying how they learned; they listed listening to lectures, taking notes, and keeping journals as their major techniques. But they also made sense of what they were learning by relating it to their own experiences; for example :

> I try to take it back in to my own experience.[1] I ask myself 'Was I taught that way?'
>
> It's an experience thing . . . . I look back and try to prove or disprove. I say 'Yes, that was relevant' or 'No, that was full of beans, I've never experienced that, or never seen anything like that, or heard anything like that other than in the class at the university'.

Later in the first semester students mentioned a greater variety of ways in which they learned -- they talked to others, they "dug around at the university", they used term papers to relate content to experience, and so on. The theme of personal experience was still important but the context seemed to be shifting from their past schooling experiences to more recent experiences. They asked themselves: "How did I feel when the professor did that?" or "How would my students feel if I did that?" They began to become very frustrated with information they perceived to be not immediately applicable to teaching or to "surviving" and indicated that they "tuned out" if the information was not personally relevant.

During early practicums students occasionally identified with their own schooling experiences. For example, when asked about a particular teaching strategy they had used they said things like: "I can remember it from when I went to school" or "That's the way I was brought up. I mean that sounds really awful but I think it's convenient for me; that's the way I think."

Although the theme of personal relevance and practical applicability continued to appear throughout the study, the instances of past experience being identified as a major learning tool seemed to dissipate in later interviews and was rarely mentioned except in the context of immediate past experiences, for example, from their just completed practicum.

University (On-Campus) Experiences

Much research in the past has indicated that students rarely credit their teacher education programs with having taught them what they know as a teacher; it is usually the practicum which is identified as the major, or even only, helpful learning experience, and many times teachers simply indicate that they learned "from experience" (Miklos & Greene, 1987). Surprisingly perhaps, in this study the university experiences and on-campus classes were identified as a major and significant context for the students' learning. Within this context three major themes seemed to emerge: 1) the role of professors, 2) the role and influence of peers, and 3) the role of reflection.

The Role of University Instructors. During the initial interviews with students the only voice that was considered to be worthy of attention was that of the professor and there was a definite focus on trying "to do what the instructor

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[1] Although all quotes are identified by student and page number in the analysis, for ease of reading the identifications are not included in this paper.

wants." As one student said: "I was checking around to make sure I was doing exactly what he has in mind." Students valued instructors who in their opinion modelled effective teaching strategies, and most indicated that while they might value the input of other students, they really "didn't want to sit there and listen to what Joe thinks." They also had different opinions about what the instructors were attempting to accomplish; one student described an instructor as modelling a particular strategy while another student described the same example of instructor behavior as "being treated like a three year old."

By the end of the first semester students' initial faith in their instructors was giving way to a desire for evidence to support what the instructors were saying. They had become quite critical and commented negatively about instructors who were not helpful, who wouldn't "share their knowledge", about lectures unrelated to assignments, about little feedback on assignments, about content inconsistent with what was happening in schools, about too much work not reflected in the grade, about a lack of direction, or focus. Students commented positively about instructors who modelled good teaching, instructors with a little flair, instructors who were available and approachable, instructors who had hands-on classes.

A theme that emerged later in the first semester was frustration at not getting "full value" from instructors. The students indicated that the instructors had "so much knowledge", and that frequently they "wouldn't let go of it." "This instructor had oodles and oodles of things she could have told us that we could have applied, but she wouldn't let loose with them."

> I just didn't feel that what we were learning in class was enough to prepare me for the practicum portion and I felt cheated that I was being sent out there and becoming a guinea pig and it scared me and annoyed me . . . nothing was being taught to us, nothing about planning or management.

Students wanted to be "taught" by their instructors. Although peer teaching was seen to be valuable, they indicated that "no one knows more than anyone else", and students felt that the instructor was "copping out", and that they were being "forced to jump through hoops." The students trusted instructor information, but had less trust for that of their peers.

During the interviews following on-campus classes during the second semester students expressed a slightly more analytical view of the instructor role and indicated that they learned a great deal from their instructors, particularly if the instructors modelled what they were teaching or had relevant personal examples; for example:

> I wouldn't have thought about this a whole lot if [the instructor] hadn't challenged it. Now it makes me want to go home and think about it.

> He created an example that we felt comfortable in. We weren't threatened or overwhelmed by his knowledge. He wasn't the only person in the room that had input.

> It's the way that he does it. He's setting an example. He's modelling teaching methods, he's not telling us about them. He modelled three different approaches to poetry today.

The instructor role might still be seen negatively, but criticisms were more explicit:

> When a prof or peers put me down it makes me very angry. I think especially when profs do that. Well, if they won't listen to me why should I listen to them? I think 'why should I believe you'?

During the final semester the students still spoke a great deal about the instructors' role in their learning, but not only were their comments more analytic -- they were also more specific, and related very often to what the students themselves were learning or had been taught. For example, in describing one instructor a student said:

> [The instructor] seemed pretty center oriented to me. She tends to pay a little more attention to the right. I learned that in Ed. Psych. and it was brought to my attention, at the same time I learned it in Arts and Science, you know when you sit in a particular part of the class -- right balance and left balance. It was really reinforced in Ed. Psych. and C&I in PS I, and of course in PS II, knowing the periphery. I've worked on it a lot.

In describing their instructors' behaviors students were using the language of teaching; for example, they would talk about good attention getters, good openers, closure, and so on, as did this student in describing an instructor from whom he felt he had learned:

> . . . and structuring a lesson, like with the introduction, development and closure. I think if you just jump into a lesson and there's no structure that's the way it's going to be. You're going to bouncing around. And I think that's one of the most important things to make sure you have a good grasp of it before you go out, as well as have a variety of different ways to attack a lesson rather than straight-forward teacher lecturing student type of thing.

During the final semester I no longer had the sense that instructors were supposed to tell the students what they should know. There was still the notion that the instructors had knowledge, power and ability on their side, but the power was now seen to be the ability to get students to think critically, to learn for themselves, rather than to tell them certain facts. The following student comments illustrate:

> I don't trust other people as much as I trust the prof. He should know, he's taught this before you know. I trust him. I'm relying on him. I'm hoping I'm not sitting in class three times a week and he's telling me the wrong information. But I realize they are busy people. They can't spend every waking hour getting up to date, which is why

I think at this stage of the game the responsibility for a lot of it is on us and it's up to me to find out and make sure he's right.

I value the instructor's knowledge simply they've been through the experience. They know what they're talking about. So even if I may not agree with or even understand it I try to make sense of it. He makes me realize, like I mean I can watch him teach but until he comes out and says 'Okay, why did I do that?' I won't really think about it.

He's always good for introducing the lesson and telling us how we're going to approach it and then he asks at the end of the lecture. With his closure and introduction and telling us what we're going to do I'm picking up more techniques from him than just history.

We did this thing called sculpturing last week . . . . It's just engraving the idea that what you're teaching has to be made relevant to the student. You've got to find a way to make it personally relevant.

She's just giving you the responsibility I think. I don't know how to put that, she's allowing you to choose your own destiny . . . not really dictating the terms of how you're going to do your work. You know, it falls on your shoulders.

It's not so much giving them what they want because at this stage of the game I'm hoping I'm doing the learning for me and trying to find out things that are going to be useful for me.

After two years of teaching, when the participants were asked about the influence of their on-campus experiences, the specifics appeared to have faded from memory. They did mention professors who were "there for them"; they specifically identified methods courses as having given them "the tools for teaching" (for example, one student specifically mentioned how she had learned questioning strategies, and so on); many students commented that they had learned the skills of organization and planning -- as one student expressed it: "PS I and PS II provided me with a good idea of what we were going to run into."

The Role and Influence of Peers. The role that peers and friends played in the students' minds and in their lives during their teacher education program can not be over emphasized. Peers had many roles to play. Initially their 'academic' knowledge was not necessarily valued; they were not seen to have the required expertise and students occasionally even resented peer presentations. They valued presentations that they personally gave, but they did not necessarily attend or appreciate when other students were accorded the same opportunity. During the first set of interviews students spoke primarily about the importance of friendship. The development of friendships, particularly in their Interaction Lab, was articulated as being very important in the students' learning. "We formed a tight-knit group which is really nice"; "I talk to my group as we drive back and forth"; "A fellow student gave me a couple of suggestions that I used and one of

them went quite well"; "I ask him or one of the other students for advice and ideas."

During the students' second semester they spoke much more frequently about actually learning from each other. There were more mentions of sharing, of buddies, of comfortable atmospheres, of small classes, of discussions and so on, than of any other learning technique, except perhaps the notion of personal relevance; for example:

> We all know each other quite well. We tend to hang around together so we have a very relaxed atmosphere for the most part.
>
> We're always bouncing ideas off each other. People are surprised when they see us all together, six or seven or eight at a time working and helping each other.
>
> I like to see other points of view and it happens easily in a class like that. We always try to put ourselves in the other person's shoes, or in the student's shoes, or in another teacher's shoes and so on.

During the final semester when the students were back on campus they spoke again about learning from their peers but they also suggested that students have to earn respect and credibility in order for their information to be valued. When the students were nearing the end of their program, there was considerable evidence of concern for other students, and both the need for and the availability of peer support. Students not only felt that they needed peer support but they also believed they could give it. One student said of her interactions with some other students: "I had learned so much that I felt I could give quite a bit of input. She's taught for nine years but then she had to come back so she's been out of it and had never been in a grade 3, so I thought I was helpful." The whole notion of peer support and collaboration came through the interviews loud and clear but were perhaps best exemplified by the following quotes:

> Before I got into education there wasn't much of that [peer interaction] but the topics range, they're just endless. You know, you talk about interviews, you talk about this class, that class, what happened, an incident there, and it's really good. You're getting a lot of feedback from a lot of different sources. I mean, that didn't really happen before I got into the Faculty. There's a camaraderie here where everyone's working together toward a common goal, and everyone's going to help everyone else, and it's nice to see.
>
> You really need contacts. You need support and that's one thing I really found. Like when I was in PS I and we went into I-L groups I thought they were a waste of time . . . and then all of a sudden it was over and you were stuck out there with all those people, and I found myself going to them [the I-L group]. You'd phone them up or you'd get together . . . .

The support of peers had all but disappeared during the participants' first two years of teaching. Several commented on the lack of administrative support; the lack of interactions with the staff; the feelings of isolation during their first year of teaching. One student expressed it: "I had never been in a situation before where I had to be completely on my own." Another student, after describing the strong support system she had found during her university program said:

> But then finding that it didn't exist in the school for me was really difficult. However, I did feel I had the skills to find a support group on my own because I had worked with people before, or shared resources. I didn't feel welcomed or supported by my school, but I felt that I could probably find those things by myself.

The Role of Reflection. Toward the end of their first semester students were beginning to make comments suggesting that reflection was becoming an important learning technique. Initially, comments about reflection or the lack thereof, were related to time. There were frequent comments suggesting that students rarely had time to think about their experiences. They expressed considerable anxiety and frustration; they spoke about their concern for grades, the stress of workload, and of managing their time; all of these were strong themes, particularly during Professional Semester I. The students had developed a variety of techniques for coping with these concerns: they "cut down" assignments; they "took an old unit from one of our friends and expanded on it"; they worked with partners; they "worked at 5 a.m. when the kids were asleep." Even though students were required to keep "reflective journals" they often described these as busy work or "writing what the instructor wants me to write."

Toward the end of the first semester there were examples of students becoming more analytical and reflective about their knowledge and their teaching. Several phrases exemplified this: "I'm struggling with who I am." "I'm shuffling my thoughts." "I keep asking myself . . . ." In spite of these few examples, reflection was not a predominant theme during the first semester.

The theme of personal reflection became much more predominant during the second semester. Students were "beginning to wrestle with tough questions." As one student said: "I keep asking the why's. Why do I do this? Why shouldn't I do this?" Another said:

> Like it really makes me stop and think 'Where? Why? What am I doing? Is this important to me?' They'll teach you a lesson and you think 'Well, that was wonderful lesson, but why? What did [the instructor] do today that was so wonderful?' I think just from that you have to reflect back and find out who you are and all about yourself, which I think is the most important thing before you go out and get a job, knowing who you are and once you find that then you can go out and teach and you feel much more confident, because I know how important a role I'm going to play in each of these person's lives.

Reflection appeared in a variety of forms, for example:

> I can pay attention really well for about 20 minutes and then I take some word or some advice or whatever and imagine, you know, what I would do, what I would say, or disagree in my head and carry on a little conversation.
>
> I'm sort of taking their assessment and trying to make sense for myself. Maybe the workload has something to do with it. It just made me realize that I do what I can, and what I can't deal with. I've got limitations. I ask myself: 'How do you evaluate a student fairly?' and it's a hard question. I try to summarize in my own form and what I think best. I'll put my own little mark there whether I disagree or agree with what they said.

Students also seemed to create a reality not only by reflecting on their own experience, but also from their perceptions of others' experiences. Many students spoke about their own experience as if it were different from (and usually better than) that of others. Often they expressed their experience positively but assumed that they were "just lucky"; for example: "A lot of people . . . but I was fortunate again"; "From what I gather other people had . . . but mine wasn't like that"; "I think they felt more frustration than I did. They had had a bad experience . . . ."

Classroom (Practicum) Teaching and Learning Experiences

There is considerable research that indicates the powerful influence of the practicum experiences on students' learning. This study also supports that research. According to many of the comments, real learning took place in the school classrooms. For students, the real test of whether or not they had learned something was whether or not an approach was successful with school pupils. Students judged the quality and relevance of their university instruction by whether it not it "worked in the classroom" and "if students got it", and they tended to repeat those strategies which worked. Major themes during the practicum included the influence of the teacher associate (cooperating teacher), the faculty supervisor and the university, trial and error, and the practicum placement.

Teacher Associate Influences. Students had very strong views of what makes an effective teacher associate, and their perceptions changed little from their first practicum to their last. During their very first practicum experience students stated their appreciation of teacher associates who allowed them the freedom to make their own decisions, who did not interrupt students when they were teaching but left comments and suggestions for after class. They indicated that teacher associates assisted in their learning by offering suggestions, providing feedback and modelling. They appreciated advice, suggestions, support and the expertise that teacher associates offered. Although the students recognized differences between their own and their teacher associates' personal styles, most students spoke of incorporating their teacher associates' strategies into their personal repertoire. They also used the teacher associate's routines and

strategies, even those which they believed they would not use in their own classroom, and indicated that they used these strategies either to comply with the teacher associate's perceived expectations or because they did not want to disrupt the routine of the classroom and the pupils. The students expressed dissatisfaction with teacher associates who interrupted, who solved classroom problems for them or who demanded that things be done in a particular way.

After the second practicum the students were more analytical and critical of their teacher associates' instructional practices and were beginning to make decisions about whether they would use a strategy in their own classrooms. "I think if it were my own class I'd have it a little more structured"; "That is my teacher associate's idea, I think it's fabulous, it works really well"; "If I think it would work for me then I'll use it, if I don't think it will work for me I'll tell him, and why." During PS II, when students were asked how they had learned to do certain things, the third most commonly mentioned method (after university classes or professors and trial and error) was the teacher associate or other teachers, particularly through example and modelling. "Well, Gary often does it in classes and probably subconsciously I picked up this stuff from his lesson and sort of adopted it as my own style." "Well, my TA suggested that I do this because then I would be looking at the class more than if I was writing on the blackboard." "That stems from my TA's class management so in order to keep them manageable I have to hold on to that."

Students spoke a great deal about the importance of the 'fit' with the teacher associate. It became very apparent from the content of the interviews that the particular relationship between the teacher associate and the student teacher was critical. The theme was most obvious when I followed the stories of individuals across the different interviews and experiences, but it was also apparent in examining group interviews. It was particularly apparent when the fit was not a good one; for example:

> How different it is to go into someone else's classroom if their style is not your style, because the kids don't adapt very well.
>
> I was disorganized last round so it didn't go very well. Probably it had a lot to do with my TA. I hadn't a clue what I was going to do. Like he would come and put down a note: 'You're going to teach this class.'
>
> I have been blessed with Brenda here because the first time she met me she said: 'Okay, I have four weeks that you can blow', so that's the flexibility I've had. It's been my brain-child and it is reflecting on my planning and I've been very well focussed on where I'm going.
>
> My TA is very supportive, very constructive. If anything is wrong it will all come back positively. I haven't had a negative experience here yet with any students or teachers.
>
> Awful! I don't know where I'm going either, but it's not my fault, and yet I bring the guilt on myself because I'm there to get a grade. I

could use more support and more ideas because I was really lost with what to do with this.

By the end of their programs students had a very clear and relatively consistent definition about what makes a good teacher associate. In general a good TA, according to these students, shows the students what to do, gives them a great deal of freedom, gives them a great deal of support and gives them constructive and "not candy-coated" feedback. The following quotes exemplify these criteria:

> One that lets you try things out. Doesn't tell you everything you should do and how you should do it. Lets you experiment. Gives you honest feedback, not just say 'Hey, that's great work'. And I think one that's open to your ideas and willing to let you explain why you want to try it. One that doesn't intimidate you. I don't really know how to explain it except that they're in the classroom but you don't know they're there.

> A good TA is somebody who accepts your ideas and lets you try different things in the classroom . . . gives you a little freedom, at the same time, you know, supports your ideas.

> She was a good example, number one, and was willing to share and explain how she did things and kept her style and organization and talked to me about different students . . . open communication . . . be really honest to begin with.

Faculty Supervision and University Influence. Students spoke very little about their faculty supervisor during their PS I practicum; in fact, the faculty advisor was mentioned by only two students, once each over the entire six weeks of practicum, and both of these students simply indicated that they would have liked to have had more feedback from the faculty advisor. However, surprisingly perhaps, by far the most commonly mentioned source of an idea or teaching behavior in their PS II practicums, particularly during Round 1, was "the university." Every student mentioned a number of times that an idea had come from a methods class, from the university supervisor, from PS I, and so on. In total, the university or a particular instructor was mentioned more than 20 times by the six students interviewed after their PS II practicum.

> Surprise, surprise! At the time when I was sitting in the methods class I thought this was useless, this is stupid, we're not learning how to teach it, and now I use the exact same idea. I think this fits perfectly into my lesson.

> It was reinforced with my methods instructor that closure is very important. It was emphasized to us in PS I that every lesson should have closure.

> From my own experience at the university of group work, I think it's a much more effective way of teaching.

> It was kind of drilled into my head through C&I last semester as well as from my methods instructor.

Trial and Error. A number of students, when asked where they had learned a particular technique or strategy, suggested that they hadn't learned it anywhere, that it was instinct or common sense, or that they learned it from experience.

> My first class -- about five minutes left and they ran out of things to do so that was an eye-opener and from that stage on I have always tried to make sure they have something to keep them busy.

> I tried it with them doing words and I noticed that when they had to concentrate on both initial introduction to the capital letter and joining all the letters it was too confusing, it was too much for them to concentrate on. So I went back to isolating the letters.

Overall Practicum Impact. During the first semester the only comments expressed about the impact of the practicum, had to do with comfort levels. Most of the students indicated that they were far more comfortable in Round 2. As one student said: "I don't know what I would have done if I had to readjust to a new placement." Another said: "In the first round I was pretty nervous; it was good to get more background. So I feel a lot more comfortable this time. I feel better prepared this round."

Students valued their practicum experiences and identified a number of specific learnings. They were learning about themselves, for example: to be tough; that kids are so different from each other; that they were having to change their work habits to get more organized; that things they had been taught didn't necessarily 'work'; that they needed to use student feedback -- "not assume understanding but look for confusion." Students also identified specific techniques that they were learning; for example: to have enough material on hand; to give clear instructions; to question everyone; to plan thoroughly; to allow time for closure; to have the resources on hand; not to change the rules halfway through; to know the content; how to deal with interruptions; not to have them sit too long; not to begin until they're settled; that a class held in a gym is different from the same class in a classroom.

Although students didn't yet feel like teachers, they did so more in PS II than in PS I. They indicated that the practicum had more effect than the on-campus courses because they could "see it working or not working"; they were being allowed to try more things on their own; they were required to do more analysis than they did in PS I; they were being urged to try something different, to try it again; they were more willing to make suggestions; they felt more sense of responsibility; however, there was still the feeling that it was a "kind of a game."

Clearly the practicum had forced the students to look at themselves: "I no longer trust my own judgement"; "I'm frantic, I'm trying to figure out my life"; "I think in that moment I began to become a teacher." They were learning that it's okay to make mistakes. They were wrestling with the notion of their expectations and the

impact on students. They expressed frustration at what students didn't know and what they should know.

According to most students the practicum was pulling things together.

> [The practicum] fills in all the empty spaces because you see someone whose actually teaching and you can ask the why's and the how's and a lot of things that people just assume you know. Being able to watch and pick up on, maybe you didn't know and it's so obvious to the teacher or the professor or whatever but not to you. That's something that doesn't come right away, you've got to practice and stuff like that. It fills in all the gaps I think.

In retrospect, when students commented on their practicum experiences after having been teaching for two years, they saw the practicums as the most important component of their program. They indicated that they "knew classrooms" because of the variety of experiences they had had during their university programs, and several suggested that increasing the practicum experience even further would have been helpful.

The Research Project

Eisenhart and Borko (1991) indicate that simply participating in a research study may impact the way the students think about their learning. The number and quality of interactions with the researchers in this study would suggest that this was likely to be the case, and indeed, even at the end of the first semester there was evidence that participating in the study was having an impact on the way students were thinking. It became apparent, for example, even during the process of one individual interview that simply talking about an experience they had just been through and being asked reflective questions was causing the student to think more deeply. For example, during an interview immediately after one class the student initially described the class as being not particularly relevant: "There hasn't been anything on teaching, like presenting very good ideas. I'm getting very little out of it right now." However, by the end of the interview the student commented about that same class: "I like her class. I think the thing is that there's practical use to it." Several students commented about being in the study and the value it had had on their ability to think and reflect; for example:

> [The study] helped me a lot in being able to talk about my problems and it makes me sit back and analyze things a bit and figure out the why.
>
> It's caused me to think more about my situation as a teacher and some of my philosophies as a teacher.
>
> For one thing it's forced me to think a lot about a lot of things that I probably wouldn't have considered . . . . It's helped me understand what I'm feeling because I have someone specifically asking 'Well

what do you mean by that?' and then when I explained it, 'But why?'. You know, it's making me dig deep into myself.

It's kind of like reflection. You can sit back and say 'Okay, what am I saying here? Here's what I've done, here's what I've said and now maybe I can go out and do it'. Like maybe it might help solidify a little more what you've been thinking.

When times were awful, when things weren't working out for me I felt I really needed to talk about it and have somebody just ask me questions, and they really helped me direct my thoughts, to focus a little bit more and to qualify what was going on. If I weren't in this study I wouldn't have thought so critically.

Students also spoke about the study being an outlet. "It's given me kind of an outlet you know, to express some of my views. I think that's important from time to time, just knowing somebody is there to listen to you and consider what you think about different issues in teaching."

What Students Learned About Becoming a Teacher

Although Eisenhart and Borko's model addresses the process of becoming a teacher it does not include the "what" constituent. During the process of becoming a teacher students clearly learn "things"; they learn to varying degrees the specifics of how to teach, what to teach, what it is to be a teacher, and so on. A theme that appeared very early in this study was surprise at the complexities of teaching.

It's not as easy as I thought it was going to be, there's a lot more behind it, a lot more research and stuff.

I just didn't realize that if you start breaking down a lesson there are components and everything. Usually, your idea of a teacher in high school, he comes in, he kind of knows what he's talking about. You don't realize the thought processes and the work that goes behind lesson planning.

The "What " of Teaching

In the very early interviews it was very clear that students expected to learn specifically "what works." They expected to learn techniques that would help them to be successful in the classroom and they assumed that there were certain ones that, if they weren't the only right ones, they were clearly the best ones. It was apparent that students believed there was a right way to teach and it was their job to discover what that way was (or it was the faculty members' job to tell them what it was.) They wanted information that was immediately applicable to teaching and surviving. When they did find an idea that worked they expressed

their relief as "seeing the light at end of the tunnel." And when they found something that worked they tended to use it again and again. In fact, during the initial interviews there was very little mention of the specifics of teaching. Teaching was, in the students' minds, a rather global concept. But by the time they reached their second semester they had begun to identify a few specifics, as mentioned in an earlier section; for example, to have enough material on hand, to give clear instructions, to question everyone, to plan thoroughly, to allow time for closure, to have resources on hand, pacing, monitoring, to not begin until the students were settled, how to read student behavior, how to deal with interruptions, to reinforce specific learnings. In other words, they were not only learning specific teaching strategies but they were also beginning to use the jargon.

The students were also beginning to be aware of what they did not know. A major worry, of course, was discipline, or as one student expressed it: "the fear of being locked in a closet." Other concerns mentioned were being under-prepared, not knowing how to teach, not knowing about voice and projection, and a host of other things.

> Do you do that with every test, or do you just know how to do it? . . . I didn't have a clue and I still don't.
>
> I mean I am just getting to the point where I'm not sure what else to do. I've tried everything.
>
> I had one class where the why questions were hard to answer, which was good for for me because I had to think fast, and it made me realize that's where I am weak in this area. I need to really get at this.

It was clear in the second semester that students were learning a much wider variety of teaching techniques. They were beginning to experiment and use different techniques for different students and for different subjects, as the following quotes illustrate:

> I thought it wouldn't work for grade sixes like it worked for grade threes. I thought they'd think it was babyish, or dumb, you know, because they acted so cool. But it does work and kind I of like it, so I'll use it.
>
> These little grade ones had me baffled because I couldn't believe they were so stupid. Well see, I couldn't understand they need so much guidance and then I thought 'Hey, this has to be done in every grade because half of them don't listen and some of them miss half of it'. So now I just do it.
>
> This class isn't really big on discussions so as soon as discussions starts to fade then we get in to the reading.
>
> It just seems not to work the same for all of them.

I had the idea that Junior High were a little more responsible and you could simply tell them something and they would do it, but I found out after the first week or so that's not the case.

[I'm trying to] get a better idea of how the student thinks. Someone may solve a problem by tables and charts and others draw diagrams so you get a better idea of where that student is coming from.

I use manipulatives to work on a Math problem. A little more group work now compared to when I started. Using more of a variety of resources, more questioning of the students, more getting them involved.

I thought 'these kids are not going to remember this' so afterwards I thought I would go home and type up the assignment so they could have a look at it to see what they had to do.

I like demonstration. I didn't really intend for Jason to be that involved, he's really good at that kind of stuff, so I thought it will keep his interest and it will give me a chance to sit back and watch the reaction. And he was really good at it and quite enthusiastic about it.

Well, it worked well in Junior High and then I tried doing here, but forget it, it just gave them an opportunity to mess around.

It would have to be for each grade level, and each type of student, and each different school, and each different teacher's personality . . . I got that idea [playing the game] from TV I guess.

Finally, during their final semester there was even greater evidence of broadened thinking about teaching and teaching strategies. Students indicated that the more techniques and activities they used the more learning was likely to result.

I'd read somewhere, it might have been in Psychology, that the more senses you can use the more engraved the learning becomes. So we had, you know, you were using all your senses.

The different things you can do, they're endless. After seeing all of that, you're just full of ideas. When I get teaching I'm going to get a student teacher to keep in touch, keep new ideas, you have to keep developing and learning.

The students perceived that their intellectual thinking, their background information and the knowledge they possessed had increased by the end of the program. In the final interview they expressed it in the following ways:

We do a lot of prep work and lesson planning and unit planning in our off-campus work and keeping our classrooms the way we want. And the on-campus things really helped lay the groundwork for that.

> [The courses] really prepared us to go out there and tackle what we had to do.

Interpersonal and Personal Qualities

A number of personal qualities emerged as themes throughout the interviews. Most predominant among these was confidence; others included a sense of responsibility, a tolerance for ambiguity and strengthened interpersonal skills. Students identified a growing sense of confidence as one of their major learnings throughout the program. Initially, students spoke almost exclusively of a lack of confidence. As one student expressed it: "The first day we just went around and said our names and our majors, and I was so worked up I couldn't breathe."

Anytime they had a successful experience their confidence soared. As one student said: "You know there's a lot of panic. My knees were shaking when I did that . . . but it worked out, which kind of gave me a really good feeling, a little more confidence in my decision as a teacher." The students' confidence ebbed and flowed with their experiences. The practicums were a major source of change in the students' feelings of confidence. It was very easy to tell simply from their posture or from the tone of a student's voice whether or not their practicum experience had been a positive one. One student's self-confidence had plummeted, and there was an overwhelming sense of hopelessness: "So it seems like I can't do anything. I've fallen into a rut that my TA has sort of established and I can't get out of it, and it's bringing me down and down and I don't know what to do to turn it around."

Another student who described the evaluation of the practicum as "a real shocker" indicated that he felt lousy about the teacher's style; he didn't like the large classes, he didn't know the content and he felt very disillusioned. He was questioning himself and asking "Who am I?" A third student said "You want to hear me scream?"

By the final interview almost all of the students spoke about how they had grown up, matured, had a different attitude, and were more confident, as exemplified in the following quotes:

> You feel that much more comfortable because you've already experienced it. So you get to grow through experiences and rather than just your knowledge expanding, you actually get to try out some of these wonderful things you've been taught.

> I've grown up for one thing . . . I think I'm thinking more and more of myself as a teacher now. I don't even know when it all came about because a month ago I didn't think of myself as a teacher, but it's coming.

> As I look at myself I have matured a lot. Let's go back to when I first started College, at that time I would have been lousy, I would never have been ready. My own personal maturity level has risen. I look at

> the world a different way now. I don't know if it's the university training or if I'm just growing, but I feel confident in myself. I present myself a lot differently. I feel more mature and more capable of going out and taking on anything.
>
> I've started making decisions, like real decisions for myself.
>
> I know now I have some skills. . . I know I'm good at some things that I didn't know a year and a half ago. If I were never to get a teaching job I would still be really happy that I finished this degree because it has done a lot for me, just fulfilled me. Isn't that weird?

A slight anomaly is this increased confidence and apparent readiness to tackle teaching, was apparent in that group of students who completed their program with an on-campus semester, rather than ending with the final practicum as most did. Although the comments did not appear with enough frequency to be considered a "finding," it appeared that the group finishing on-campus had returned to a more dependent student role; they ended their programs with a less-well-defined teaching style and greater ambivalence about their own roles. As one of the research assistants expressed it : unlike the group who was prepared to fly from the nest and try their wings as fledgling teachers, this group had tried their wings, only to have to return once again to nest.

In addition to developing greater confidence, most students seemed to be taking more responsibility for their own learning, but this was not always the case. As one student expressed it, if she had it to do over again she would have "realized earlier on that a lot of learning is on my own, and take the time to learn it rather than sit back and wait and wait for someone to actually tell me." However, this same student apparently was not yet ready to be fully responsible for her own learning as she later said: "Some of the classes were a waste of time. To do nothing really annoys me and I know it's part of the self-learning and I think they encourage us to use different learning styles, but it's not my learning style . . . . I think there should be some set standards. Everybody should be teaching the same thing."

A third quality apparently developing in many students was a greater tolerance for ambiguity, and openness. Initially, they expressed a desire to learn "the right way" or the best way; later they seemed more open to "letting the ambiguity in."

> I think I've learned to be more accepting of a broad range of attitudes and more accepting of people. I found I was a lot more narrow-minded before I got in to the Faculty. I think it's really opened my eyes that way.
>
> [That] was a good course . . . we were all trying to find answers together and if there weren't answers that was okay. And it was okay just to question and to think rather than find a solution . . . . I think it really encouraged my critical thinking and not to just accept one answer or one source as the right solution . . . .

Occasionally more information muddled their thinking but they seemed to be learning that confusion was not necessarily a bad thing. As one student expressed it:

> Actually that kind of got me confused. As soon as we started to talk about them that kind of lost me . . . [but] in the long run you're adding information and you become more clear of what's going on. So it's fine as long we get it cleared up in the end.

> When you're confused about something, you're kind of intimidated. But once you come through it again and you think you understand it then you feel more comfortable with your stand. I think it's a necessary process to go through . . . . It helps me understand what others in the class were going through. When I came out the other end and understood it once again, it seemed to be a little more flexible.

Finally, although students didn't refer frequently to the development of interpersonal skills, it was clear that personal interactions were important to them.

> Through PS I and PS II you're always doing something with people, whether it be a class presentation at the university or discussing projects, or group projects, there's so much opportunity to work on those [people skills] because you're always working with people. You're forced to develop those skills.

Content/Subject Matter

Interestingly, throughout all of the interviews there were very few references to knowledge of content. Most of the references to content were made when students spoke about the classes they were taking outside of the Faculty of Education, i.e., Arts and Science classes, and even then the comments were mostly about teaching style and rarely about content. Comments about content surfaced most frequently when students were having difficulty; occasionally they identified lack of knowledge of content as the problem. Students also mentioned content when they talked about integrating their knowledge, which will be discussed in a later section of the paper. Interestingly, during the telephone interviews after two years of teaching, many students (now teachers) identified lack of knowledge about how to teach specific subject matter as an area in which they did not feel well-prepared. .

A Teaching Style

It became apparent by the final interviews that students were beginning to develop their own style of teaching. Even during early interviews when students were asked what they wanted for their children in the classroom, at least half of the responses were expressed from the point of view of children; for example: reaching kids that no one else can reach; wanting kids to enjoy, to feel safe, to learn; wanting kids to develop confidence and pride, to realize their potential.

Other students focussed primarily on themselves and gave responses such as: "I want to convey information; I want respect; I want to present material so children can be creative." Almost without exception, in later interviews when students spoke about the kind of teacher they hoped to be, or their beliefs about teaching, they spoke in terms of students; for example:

> I would rather be so that the kids know that when they go out in to the real world nothing is straight forward and separate.
>
> [I] think about whether I'm doing it right and whether it's going to benefit the students the way I'm doing it.
>
> Well, you have to appeal to their interests. You have to be really enthusiastic so they enjoy listening to you and can understand what you're trying to tell them.

Although students did not specifically describe their teaching style, their comments during the final interview suggested that they were beginning to see themselves as particular kinds of teachers.

> Well, it doesn't work to punish them all the time . . . they're all just working independently so no big deal, no sense blowing a hairy, if you keep blowing hairies nobody listens.
>
> So when they solve problems like that I'm not only interested in if they solve but exactly how they solved it just to get an idea, well a better idea, of how the student thinks, I'm looking for different ways.
>
> When I take on more approaches it becomes more fun for me to teach and I think the students enjoy it more as well, so I think their participation has picked up, I feel more confident with myself as a teacher.
>
> I break it [teaching] down into the control aspect, pacing aspect, and student involvement. I can't really say that I have specific routines that I could mention to you off the top of my head for each one of these areas, it's just that you do it as the situation occurs. Those are the three things I really concentrated on in my student teaching.

I don't try to put up some kind of ego type of image that I was the authority, I knew I could relax in this class because they were just easy to teach and get along with.

I kind of like to look at it [teaching] as the subject is more important that the subject matter, or the topic at the time is more important than me. The top of the triangle is the subject, not the teacher, and down both sides are the student and the teacher and you're aiming for the same goal.

After two years of teaching it was clear that the participants had developed a philosophy of teaching, which without exception focussed on students. Only one of the teachers described his philosophy in terms of his own teaching, that is as a "well-organized teacher." All the others described teaching in terms of students; for example:

We have to be motivators and facilitators, more than givers of information. I think if you can generate some kind of interest and act as a guide more than as a source of information, students are going to be more interested and learn a lot more.

I believe in the importance of the individual, the students that I'm working with; each one is different and they are individuals and they deserve unique things.

The student has to take the responsibility on to learn, and I have to be willing to help and aid and facilitate in any manner and/or form.

My philosophy is success for the kids. Whatever programs we are doing, if we are not successful as a group of students then as a teacher I'm not successful. If they don't personally feel successful in friends and things that they are doing they won't succeed in school.

A teacher should be someone who is there for the children. You have a certain curriculum to get through, but it is more important to teach them the life things. I'd like to bring life into the classroom.

I believe in the success of the of student, that is the ability to take part in society in a meaningful way.

Being accepting of the children. I feel they are almost the teachers in a lot of instances. Going in I thought 'I'm there to tell them what to do' but I found that they can guide me a lot easier, and we can go from the direction that they are coming from.

Putting It All Together

The first box in Eisenhart and Borko's model, the point of the whole study is to describe "changes in individual participant's knowledge, thinking and action" (p. 145). Although the results of this study are presented as group data rather than as changes in individuals, the intent of this study was similar -- to describe changes in the students' knowledge, thinking and action. A number of themes seemed relevant in the whole process of "putting it all together." The first of these seemed to be "role conflicts'.

Role Conflicts

Although it may appear odd to include 'role conflicts' under the heading of 'putting it all together', it did appear that these conflicts were an unavoidable, and perhaps even important, learning process. At the very least they need to be considered. Students clearly expressed many role conflicts and conflicting pressures, particularly during their practicum experiences. Eisenhart and Borko suggested in their paper that the preference for what the students teachers call "ideas that will work" is created by the multiple demands placed on the student teachers by the teacher education program. They outline a number of demands including giving time and energy to being good university students and getting good grades; being good professionals in the classroom; dressing and speaking appropriately; making school work conceptual experiences for students; being good disciplinarians; making learning fun, and so on. They suggested that: "in this tangle of competing expectations the student teachers were asked to find their own way, to take responsibility for their lives, to solve their own problems, to make their own decisions, to plan their own lessons and to innovate as much as possible" (p. 152). They attribute much of this conflict to the fact that the students had to student teach during at least some portion of every school day and did not have the time to carefully construct and reflect upon their own classroom activities. This was not the situation for students in this study. Nevertheless, they did express a number of conflicts. There were a number of comments about "stepping in someone else's shoes", or into another person's classroom. "It's like talking about what you're going to do when training for a war, but until you're on the front line you don't know what war is about." There were also conflicts about trying to "mold themselves to the TA's style", or as one student expressed it: "to just play the game and mold yourself to her style and put up with it because they don't seem to want to change, so I live with it." "I know deep down that that isn't right, but I guess at this point I feel like I'm trying to please everybody." "Well, trying to please someone else and look agreeable . . . like I don't go around smiling at people because I'm happy, it's because I want them to think I'm happy . . . going through all of this for someone else." "I just think everything I've tried hasn't worked and I'm just getting to the point where it's like this is it, I can't deal with this, and I think so much of it is the outside pressures."

During their final practicum, students expressed other teaching-related conflicts, for example, in determining the relationship between themselves as teacher and themselves as student being evaluated by the teacher; in establishing in their own minds the relationships between discipline and friendship; among respecting

students, involving students, treating students individually and requiring students to abide by certain behaviors. There were still conflicts between wanting to get good marks and more feedback, and wanting more responsibility and opportunities, but also being unwilling or afraid to risk being too different.

Finally, their impending graduation and the reality of being in their own classrooms as a fully fledged teacher the next semester, raised conflicts between the comfort of their role as student and the reality of their role as teacher. For example, the business of classroom management had become a major concern and an immediate issue, or as one student put it "a living creature." Another student expressed a certain sense of panic about her impending job:

> I try to put it together and stuff that I learn in class I try to use but it's just theoretical. For example in the Psych. class they tell you about the child's behavior and the stages but not what you should do at each stage or how to react to certain things . . . and I didn't learn anything about the new changes in the Science curriculum. I am going to be a real peon when I have a job interview . . . Same with evaluation, I don't have a clue what I learned . . . I'm going to have to learn about evaluation and the new Science curriculum. I have to fill in the gaps.

Retrospection

A second theme, and perhaps a technique used in putting it together, or developing a philosophy of teaching, was retrospection -- looking back in thought, contemplating past experiences. Many things that students apparently did not want to do or did not see the point of at the time, they saw later as being of value. "I'm glad I did that. When they first told us that I might be doing other subjects I thought 'No, I don't want to'." One student, in speaking of a previous practicum and the difficult times she had, said: "I look back and I don't think 'horrible'. At the time I thought 'it's just the most hideous thing you could do to me' but I look back and think 'That wasn't so bad'." Many students went so far as to suggest that students should be made to do things they didn't want to do or see the point in; for example:

> It's important for everyone to go through, I mean I think most people say 'No, you shouldn't force me', but I think it's really important so I think everyone should go through it. How you're going to convince the next students though I don't know'.

> At times when you go through experiences, especially PS I, you wonder why you're doing it, why you're doing all this busy type work until you look back on it and realize that you needed to do some of that work, otherwise you would be be like a bunch of loose wheels and not have any real direction.

Integration

It was very apparent from the interviews that students had integrated learnings from a variety of sources and in a variety of ways. The kind of thinking described in the final interviews was very different from that in early interviews. During the first components of the teacher education program the majority of students considered the content of on-campus classes non-sense and impractical. While most tended to trust that it would all come together for them, others were impatient with not knowing the purpose of activities or assignments. They made sense of their experience by relating the content to their own recent classroom experiences in other university classes or in high schools, or to their own children. After their first practicum round they valued the experience but still did not see the relationship among theory, principles, concepts they were learning on campus, and the experience in the school classroom. Rarely did they attribute what they had done in their practicum to anything they had learned on campus; they tended to speak of their behavior as common sense or experience. However, when they returned to the on campus portion of the program it was clear that the most prevalent learning strategy was relating this new information to what they had just experienced in schools. The students made comments such as the following when referring to their on-campus classes: "I found myself comparing it to my round with my grade ones"; "I did that in my first round of teaching"; "I was thinking back to my class just a few weeks ago when I tried to be clear in my instructions"; "so I can see that in my class this might work"; "in the class I have now they wouldn't handle that well." They were relating what they were presently learning to the first three weeks in the practicum and anticipating what they would or would not use when they went back to the schools.

Toward the end of the first semester there appeared to be some evidence that students were integrating the knowledge they had developed from on-campus classes with their practices in the classroom situation. They used terminology or concepts learned in on-campus classes to describe what was going on in a classroom situation. However, they still expressed a hope that things would come together more than they were; for example: "[Content knowledge is] way over here and teaching is way over on the other side [and education courses are] hopefully somewhere in the middle."

In the beginning of their second semester students spoke (although not using these terms) both of linking theory with practice and of linking practice with theory. For example, when they were speaking of their on-campus classes they made comments such as: "I try to take it back into my experience." " Things make sense because you hit the situation." "Coming back to campus after Round 1 allowed me to see where the concepts could be applied. I think what grade I would use that in."

In addition to integrating theory and practice, students were integrating by assuming greater responsibility for their learning. In the early interviews it was apparent that students for the most part were learning primarily to get good grades, or to do what it was the instructor expected. Students seemed to be spending considerable time trying to figure out what the instructor wanted. They insisted on knowing what the purpose of the assignments or tests was, what they

were going to do with them, how they were going to be useful. Later, students were finding other reasons for their learning: "In PS I I don't think I really understood what we were supposed to be doing. I did it, but I did it for my prof not for me."

By the second semester it appeared that in addition to wanting practical and relevant information, they wanted to understand the theory; for example:

> Today it was like scratching the surface of the theory, if you're just going to deal with the practical components and not the theory I don't know if it really helps you to develop professionally as an evaluator.
>
> Like this isn't just for the marks you know, it's so that you can understand it when you go in a classroom and when a kid says 'Who thought up this theory?' you can say 'This is what happened.' I mean who gave it the name Math? Good question you know."
>
> One assignment is an academic paper and one is self-analysis. I think it will help me not only identify areas where I can improve but also set goals for myself to improve in those areas.
>
> And I find myself going back through my textbooks and looking and reading and seeing now there's a reason for me to go back there. This is going to help me survive and it's going to help my students survive.

Another student compared field trips in her school days with how she saw field trips now as a teacher:

> It seemed when I went on field trips it was just a day off school, but it is all in how you use it. You can take a Science field trip and plan a whole unit around it. I could integrate it into my Language Arts. I could make it into an Art project. We are both students and we're also trying to apply it to ourselves. That is always going. It's confusing but I'm just going to try to pretend I'm a teacher instead of right now I'm a student.

Students also provided evidence that they were pulling together all of their learnings from their past experiences, their university courses, their practicums, their friends' experiences, their reading, their assignments and so on.

> With each anecdote, with each teaching strategy, there's a little story that helps me relate to it and I remember because it's related to real-life situations. In the back of my mind I think 'This could happen', possibilities of how it might be a disaster, how it might be a success. That's why I'm prepared for both upcomings and downfalls.
>
> I learned this in elementary school, and I think probably from various TA's suggestions, and university courses on how to get it across to them. I just thought it was a good way to do it.

> You can take what you've learned especially since it was an elementary group for me this round and transplant it, and I found that I was going back to my notes, back to the games we had done in class and I'm using those.

Another way that students were integrating was by reflecting on their own teaching and their teaching style.

> For example, I mentioned instruction was an aspect that . . . posed a problem for me and through this course, and actually through PS II, I've had a chance to rethink that aspect of my professional growth . . . When my evaluator came up to see me he mentioned that I appeared to be unenthusiastic in front of of class. . . At first I thought this was because I was uncreative but I think it all stems from the fact that I want control in the classroom . . . I was actually quite fortunate with instruction, that all the pieces of the puzzles, all my questions that I had throughout PS II and up to this point in this semester they just seemed to fall together, and it seemed to lean towards that I want control in the classroom.
>
> And that's what I'm struggling with [whether it should be a teacher/student relationship or a friend/friend relationship]. I mean I was brought up with a very teacher/student, you know, my entire life, my parents, everything has been "you're the one below" and I guess maybe I'm afraid to let that go. Maybe that's my security know that there's always an authority figure, someone in control.

Courses also seem to be fitting together for the students; for example:

> For my Language Arts and my C&I for non-majors, they're kind of the same cause you are lesson planning and what not and the other course just fits into everything it seems.
>
> In the History of Ed. we're talking about Quebec right now and in a way it's fitting into the Social for Non-majors because we talk about curriculum and current events and that helps because way back in time . . . . In the Improvement of Teaching it's seeing who I am and what I want and the Language Arts . . . . We're going through the process of integrating in kind of a round about way.

Another student in speaking about how one course seemed to be an integration of two others she had taken, said: "It's what she puts us through. The little experiences every second day or so that I guess it's a combination of what [previous instructor A] was doing and [instructor B] is doing."

Another student, in speaking about a course in which Paulo Friere's theories were being examined, spoke about how Friere's theories might be used in his own teaching, and said, when asked where he had picked up that idea: "I think a lot of it came through C&I and being out in the field. It's cyclical, it comes and goes and now it's on the up-rise again I think. It's new as far as knowing that it came

from him, originated with him, but I think it's one of the best avenues you could use to teach."

However, students were having much less success integrating components from their Arts and Science classes. As one student expressed it: "Up to this point, no, to me the two [Arts and Science and Education courses] are still sort of divorced from each other. At this point they're two separate things, and maybe that's because I subconsciously have treated them as separate things."

The instruction in most Arts and Science courses was seen to be considerably lacking. As one student expressed it: "You would yawn if you came to that class I can tell you. Oh man, you're sitting there for an hour and a half just writing notes, such a difference." Later on a student said: "What is this guy doing teaching? You know, I don't know but I probably would attack that a little bit differently. I don't get much out of that class."

Students appeared to feel that the entire teacher education experience had been an integrating one:

> Specifically the education type courses where they're trying to teach you how to be teachers and all of a sudden you remember 'Oh well, this would be a good technique or method to try.'
>
> I'm coming to realize that what I think of the type of work I'm doing is more important than the type of work somebody else thinks I'm doing. What's important to me now and is becoming more important is what I think of myself. I never really thought in those big terms before, it's always been what other people think.
>
> The teacher education program here has provided a wide variety of approaches to teaching - instructional ideas, instructional strategies. I think essentially because there's a wide variety of ideas and the pedagogy isn't straight forward by any means. You kind of have framework to work from but at the same time you develop what fits your own style.
>
> You go out into the practicum with this knowledge of theories, like child psychology and that kind of thing . . . . I never consciously sit back and say 'Well, I learned this here, I learned that there.' With me it's more of a 'Yes, O.K., I have all this knowledge and I have these resources to draw from and everything' and I just use them when they seem to fit.
>
> [The on-campus portion is important because it gives you] the chance to integrate the ideas with the practice . . . . I have a semantic web in my head and in the front of it it says 'Bachelor of Education', and all around it are all these little components that make it up so that . . . I'll have certain skills and attitudes and ways of looking at things to use.

Transition to Teaching

Although the initial intent of the study did not include a focus on the transition from being a student to being a teacher, it is clear that becoming a teacher does not end when a student graduates with a Bachelor of Education degree. Therefore, during the telephone interviews conducted after the participants had been teaching for two years, they were asked to describe their first few months of teaching. Every participant described the first few months as being "extremely busy"; one-half of them used the word 'hectic' to describe their initiation to teaching. Other words were 'scary', 'exciting', 'hell', 'awful', 'shocked.' Their comments suggested that it was not so much a lack of knowledge or preparation, but was primarily the feeling of isolation, the lack of support, "learning the ropes and the procedures", and coping with the variety of tasks and routines that faced them during those first few months. One teacher's example illustrates:

> I cried almost every night; worked 15 hours a day; slept very little. I was teaching six or seven different classes ranging from grades 8 to 12, some inside my subject area, some outside. In the areas of my major I felt well prepared but I had never been in a situation where I had to be completely on my own . . . . The extra-curricular absolutely overwhelmed me. I remember walking into my first staff and having all those eyes on me, waiting for me to volunteer for these clubs and school committees. The first couple of months was absolute hell, I hated it, it was a transition I don't ever want to have go through again.

In spite of what appeared to be an almost universal, unpleasant period of adjustment, all the participants indicated that they felt well-prepared to be a teacher. Their particular strengths, as they saw them, were in the areas of organization and planning; knowing classrooms; knowing how to teach. Several students commented that they felt better prepared than other first-year teachers at their school. As one student put it: "Comparing myself with other students from other universities I thought that we had a much better bunch of knowledge if you want to call it that." Nevertheless, it is apparent that the students were not well-prepared for the realities of their first year of teaching.

Discussion

It seems clear from the findings of this study that students do change during their teacher education program. Contrary to previous studies in which practising teachers identified the practicum as the most, and often only, contribution of their teacher education programs to their expertise as a teacher, the conclusion of this study is that the total teacher education program contributes significantly to the process of becoming a teacher. Wineberg (1991), stated: "There is ample evidence demonstrating that people are less than accurate reporters of their own cognitive processes particularly when these processes, have long faded from short-term memory" (p. 72). This study would support Wineberg's claim. The study has identified, in part, the nature of the changes that students go through during their teacher education programs, and

contributors to those changes. The results of the study also suggest changes to the model proposed by Eisenhart & Borko (1991).

The Nature of the Changes in Students

The findings of this study suggest that students learned a great deal about how to teach; they learned organizational and routine procedures; they learned how to deal with specific students; they learned the jargon of teaching; they learned a variety of teaching techniques and strategies; and they learned why they might do certain things. Secondly, the students learned how to learn. They began to take responsibility for their own learning and to translate their own learning into techniques for teaching. They learned how to learn from others and how to use others' learning for themselves. Thirdly, they developed or enhanced a number of personal qualities during their teacher education program; they developed confidence which was enhanced by frequent interactive and supportive feedback from faculty, from teachers and from peers. Their confidence was also enhanced both by having a variety of different experiences, and by returning to similar experiences after having had an opportunity to reflect on that experience. They learned 'openness', to "let the ambiguity in." They learned that there wasn't one right way, or even, perhaps, one best way to teach. Rather, they learned to keep searching for a better way to help their students learn.

Finally, they learned about themselves as a teacher, and they began to develop a philosophy of teaching which focussed on students and which, in my opinion, clearly reflects the philosophy of the program which they had completed. (See Guiding Principles of the Teacher Eduction Program, University Calendar, 1992-93, p. 57).

One area in which the students appeared not to have changed a great deal had to do with their expectations. Students entered this teacher education program with high expectations and a strong sense of optimism. Initially, even though they "couldn't really see the pattern" to what they were learning, or "even the purpose", they frequently indicated that "it would all come together in the end." They trusted that the Faculty knew what they were doing and that the program was well-designed. It appeared that this optimism, created initially by the high reputation of, and stiff competition to get into, the teacher education program, sustained students and in part led to their high performance; they had succeeded in getting into what they believed was a good program, they believed the program would "teach" them to be good teachers, they had succeeded in the program, hence they would be good teachers.

Contributors to the Changes

In his study of how historical facts are arrived at, or how people construct an understanding of historical events, Wineberg (1991), identified three heuristics, or rules of thumb, which help individuals fill in the gap and help them to make meaning. These were: "a) corroboration, the act of comparing documents with one another; b) sourcing, the act of looking first to the source of the document

before reading the body of the text, and c) contextualization, the act of situating a document in a concrete temporal and spacial context" (p. 77). These heuristics seem also to be among those used by students in this study, although the word 'experiences' might be substituted for the word 'documents'. The students in this study changed first as a result of having been taught, which might be akin to the heuristic Wineberg calls 'sourcing.' This included learning from university professors and university classes. Initially, professors were sources of information simply by virtue of their position. Later, students learned most from professors who had had relevant experience, who had proven knowledge. They learned particularly from professors who cared about what they were doing and what they were teaching, and from professors who demonstrated and practised what they taught. Students also learned from their peers. This seemed to be akin Wineberg's heuristic of 'corroboration'. They used their peers and their own experiences in classrooms and with students to confirm, to validate, to corroborate or to reject what they had been taught during on-campus classes. Students also used their peers to support their learning.

A third contributor to the changes in the students was the practicum experiences, which might be likened to Wineberg's notion of 'contextualization'. It was important for students to put their learning and their knowledge into a context, that is, the school classroom, where they learned from their cooperating teachers, from trial and error, from their faculty supervisors and from their own and others' experience, both from new experiences and from revisiting previous experiences.

Finally, a heuristic not identified by Wineberg, but perhaps the single most important contributor to the learning of the students in this study, was reflection. Students in this study had a number of opportunities to reflect on their learnings; reflection was specifically encouraged in their Interaction Lab module; students completed a variety of journal assignments in a number of classes, all of which provided feedback and encouraged reflection; faculty members provided many opportunities for students to discuss their practicum experiences; during practicum experiences students were assisted to reflect on their on-campus learnings; the research project itself provided an opportunity for students to reflect on their program, their experiences, and their own thoughts; and finally the close relationships with peers allowed for considerable discussion and reflection with each other.

A Revised Model

The Eisenhart and Borko model served well to guide the analysis of data in this study. However it has become clear at least to this writer, that some revisions might be appropriate. The model addresses only the process of change, that is, the contributors to change rather than the nature of those changes; accepting then that the model addressed only process, the word 'becoming' in the title, is appropriate. However, past personal history and public school experiences, while influential in the initial decision to enter the teaching profession and in 'filtering' how the the students interpreted and made sense of their initial experiences, faded as students had more recent practicum experiences within which to test their ideas. Hence these boxes are combined and made smaller.

Correspondingly, the contribution of the university and the classroom experiences assumed greater, and approximately equal, importance. Secondly, it became apparent that the arrows should go both ways; not only did these experiences affect the changes in students, but the resulting changes affected the students' subsequent experiences. Similarly, the research project led to changes in students, which subsequently affected the research project. Finally, the integrating factor which appears from this study to tie all of the boxes together, is reflection. The model appears as Figure 2 revised on the basis of this study.

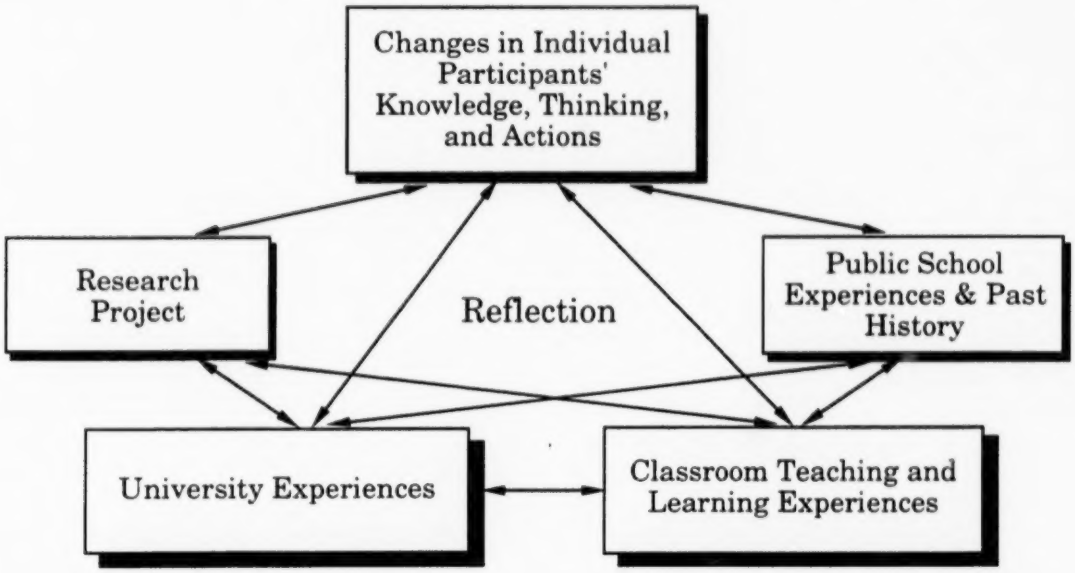
Changes in Individual Participants' Knowledge, Thinking, and Actions
Research Project
Reflection
Public School Experiences & Past History
University Experiences
Classroom Teaching and Learning Experiences

Figure 2: Becoming a Teacher: The Preservice Component

Implications for Teacher Education

Changing the Assumptions Underlying Teacher Education Programs

Alan Tom, in speaking at a conference in Vancouver, B.C. in 1991, described four common-place structural assumptions built into current teacher education programs, and suggested that these assumptions militate against the effectiveness of teacher education. These assumptions are used as an initial backdrop against which to discuss the implications of this study for teacher education programs.

Gradualism. This assumption suggests that knowledge accrues over time and results in an "apprenticeship of observation" and an underestimation of what people can learn through short, intensive experiences (Tom, 1991). The findings of this study indicate that both the assumption and Tom's criticism of it, may be

accurate. Students in this study learned a great deal through short, intensive experiences such as a 3-week practicum or even from one specific class, but *their learning was enhanced immeasurably when opportunities were provided and structured to encourage reflection on and discussion about that learning* (for example, through the I-L seminars, through feedback in journals, among peers, and even as a result of the study itself.)

Knowledge Before Practice. There is considerable evidence that the assumption of 'theory into practice' is well entrenched in educational thought and in teacher education programs; often teacher educators insist that students not practice teach until they have mastered certain prerequisite knowledge. The experience of the students in this study suggests that 'practice before knowledge' or 'practice into theory' is at least as powerful as the reverse. Although students in this study did give many examples of directly or indirectly translating their on-campus knowledge into their practicum situation and suggested that theory was not really meaningful until they "hit the situation", it was also evident that their on-campus learning became much more meaningful after their practicum, after they had "something to hang it [the theory] on." The students felt "short-changed", "frustrated", and "gypped" during their initial classes because the knowledge wasn't "relevant", "useful" or "practical". After their practicum they began to "see the point." These findings support Vansledright and Putnam's (1991) contention that:

> This newer, more state-of-the-art approach [to teacher education] suggests clearly that infusing student teachers (and teachers) with theory, an artifact of the process-product research model, accounts for only part of the learning to teach story, and perhaps only a small part at that. The other part of the story appears to involve a sensitivity to building theory from practice . . . within the very context of teaching (p. 117).

Significant early field experiences would seem to be necessary and important in teacher education.

Horizontal Staffing. Tom suggests that in most teacher education programs students move from course to course as if on a conveyor belt moving toward student teaching. He suggests further that this "passive and piecemeal curricular approach" results from typical staffing patterns in which faculty members identify with their particular disciplines or areas and that there is little communication between or among areas. Tom believes that a "vertical" arrangement might be more beneficial. Students in this study had participated in just such an arrangement; particularly in PS I they were identified as a vertical group which included their Curriculum and Instruction, Education Psychology, Language Arts and Interaction Lab instructors. There was considerable evidence in the findings of this study that this arrangement facilitated the integration of the students' learnings.

Continual Student Regrouping. Tom's final assumption is that students rarely have an opportunity to form long-term or collegial relationships because of the way teacher education programs are organized, that teacher educators "generally

have ignored the social aspects of teaching in which individuals have relationships with one another and collective obligation to the overall profession." Students in this study participated in a rather different organizational structure in which they progressed through the program as cohorts. This appeared to be one of the most valuable aspects of the program; not only did students develop friendships and support groups, they also learned from each other and developed professional relationships that many continue to maintain. The value of including a component to specifically address interpersonal and communication skills and provide peer support was clearly demonstrated. The students entered the teaching profession with an orientation toward cooperation and collaboration and expected that to continue through the profession. Sadly, however, this was not to be the experience for most students in this study, at least during their first year of teaching. The necessity for a transition experience would also appear to be obvious.

The Importance of Practicum

Students in this study verified the importance of the practicum experience in learning to teach. Their experiences supported the value of having a variety of different experiences as well as the value of returning to the same placement to build on experiences. As in other studies, students also suggested that the practicum should be lengthened, even though their total practicum experience was longer than in most teacher education programs.

Covert & Clifton (1983) claimed that the development of professional predispositions is as important to the professional teacher as technical competencies, and that this sense of professional commitment should be developed as part of the training of student teachers. They state further that it is assumed that by extending the student teaching practicum, attitudes toward professionalism would increase (p. 305). However their study, which compared the professional values of students in two programs with different lengths of practicum, raised doubts about this assumption. They found that students' self-confidence and positive attitudes about teaching decreased during the longer practicum and they speculated that in the shorter practicum students never experience the effect of shouldering the constant responsibility for 25 children and so realistic attitudes do not surface. When they do surface (in the longer practicum) "the longer the uncertainty persists about whether the student teacher is a student or a teacher, the more difficult it is to feel adequate in either role" (p. 305).

Students in this study also experienced significant role conflict and a drop in self-confidence, particularly mid-way through their final practicum. However, at the conclusion of that practicum they felt confident, prepared to teach and committed to teaching (in spite of new-job anxieties). At least three conclusions are possible from Covert and Clifton's research and from this study. First, practicums long enough to allow students to assume full responsibility for the class for a period of time would appear to be necessary; second, support and feedback for the student teacher during the practicum is essential; and third, extending the practicum means extending the *total length* of the teacher education program -- without on-

campus components and the opportunity to reflect on and learn from their practicum, the student teaching experience becomes simply an apprenticeship which is only as good (or bad) as the particular situation allows.

The Importance of Reflection

Pajares (1992) argues that most students enter their academic disciplines without well-developed theories and preconceptions about their field of study, and therefore the learning process "involves minimal conflict or threat, for they have slight allegiance to prior expectations or ties to former practices and habits" (p. 323). Preservice teachers, on the other hand, are 'insiders', and need not redefine their situation;

> the classrooms of colleges of education, and the people and practices in them, differ little from classrooms and people they have known for years. . . . These students have commitments to prior beliefs, and efforts to accommodate new information and adjust existing beliefs can be nearly impossible (p. 323).

Buchmann (1989) points out that this "familiarity pitfall" limits the perceptions of beginning teachers, supervisors and researchers; that is, so much in teaching and learning goes unexamined simply because it has become common place. Real learning to teach requires radical disruptions of the status quo and the everyday common sense flow of teaching to truly alter perceptions and practice. Hence, the importance of reflection.

Reflection, however, does not just happen. Students must be provided with the skills of reflection and a multitude of opportunities to practise those skills. In this study those opportunities were provided through the content of the Interaction Lab, through journals (and feedback on those journals), through constant, constructive feedback from teacher and faculty supervisors in the field, through frequent interactions and discussions with peers, through the regular opportunities to talk with the researchers, through course assignments which required students reflect to on their experiences, and by some professors who structured experiences to facilitate reflection and critical thinking.

The Individualized Nature of Learning to Teach

Although the results of this study have been presented as common themes it is important to point out that there were also 12 individual stories. Obviously "the acquisition of professional knowledge will depend on the existing cognitive structure of the individual teacher and consequently, as a result of the interaction between the two, the knowledge constructed will be personal and idiosyncratic" (Tamir, 1991, p. 265). Students in this study had individualistic perceptions of what was valuable, about whether particular experiences were useful, and how they made sense of them. It appeared that whether or not a class, an idea or an experience was seen to be of value, and whether it was internalized, depended upon a combination of: a) the instructor -- whether he or she was perceived to be

caring, effective, prepared, relevant, up-to-date, and enthusiastic, b) the context of the experience -- placement in the program, time of day, setting, nature of the class and so on, and c) the students themselves -- whether or not they had sufficient background, whether they were interested and motivated, and whether the experience was consistent with their personal beliefs. In the end there can never be one teacher education program that will be best for all students. Like the students struggling to find a better way to help their pupils learn, teacher educators must continually search for better ways to assist students in the process of becoming a teacher.

Implications for Evaluating Teacher Education Programs

Galluzzo and Craig (1990) suggest that for the assessment of teacher education to reach its potential, the best scenario is that "program evaluation become a collection of small, loosely-coupled studies conducted by a variety of faculty members, all of which are designed to gain a clear understanding of the contexts, inputs, processes and outcomes of the teacher education program" (p. 613). The hope is that this study will contribute to that understanding and will stimulate further research on the process of becoming a teacher.

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